Amendments to the Specification:

Please add the following paragraph immediately after the paragraph beginning at line 5 of page 7:

Further details regarding synchronization unit 312 will be provided with reference to Figure 6. While Figure 6 illustrates the various components of synchronization unit 312 as separate blocks, one skilled in the art will recognize that the various blocks can represent routines or software running on a digital signal processor or microprocessor as well as representing dedicated circuits. Synchronization unit 312 includes a detector 330 that determines values of a variable of the pulse sampled signal at N sample points when the pulse shaping filter is operating in its first mode and a subset of N sample points when the pulse shaping filter is operating in a second mode. The variable is independent of the information content of the signal. Accumulator 332 accumulates the detected values for each of the sample points that occurs at the same relative sample location within each information period, recognizing that there are (sample rate)/(information rate) sample locations within each information period. The accumulated values are stored in sample bins 334a, 334b, . . 334n. Comparator 336 compares the accumulated values stored in the sample bins and, based on the accumulated information content-independent values, determines the location of the information bearing point. Identifier 338 is used to identify the relative sample location most closely corresponding to the information bearing point. Control signal generator 40 generates a control signal to the pulse shaping filter that includes the identity of the identified relative sample location.

Please amend the paragraph beginning at line 14 of page 12 as follows:

In yet another embodiment, pulse shaping filter 206 is configured to process the highest energy sample point and the second point in each direction. In Figure [[5]] 4, this would correspond to points 107, 111, and 115 (as opposed to point 109, 111, and 113 in the previously discussed embodiment). Synchronization circuit 208 will interpolate between these three points in order to find the actual information bearing point, so the fact that the two closest points to 111 are skipped does not matter for purposes of synchronization. This embodiment would be preferable when the signal waveform is

changing rapidly and the peak point would rapidly drift outside the bounds of points 109, 111, 113. Instead, by bounding the reduced mode processing over a wider portion of the curve (the portion of the curve between points 107 and 115), more drift can be tolerated before synchronization circuit is unable to interpolate and the pulse shaping filter must be returned to full processing mode in order to re-acquire synchronization.